IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	)	
	)	
Robertson	)	Group Art Unit: 2609
	)	
Serial No.:10/614,339	)	Examiner: Kang, Suk Jin
	)	
Filed: July 8, 2003	)	Confirmation No.: 7869
	)	
For: METHOD AND SYSTEM FOR	)	TKHR Docket: 060707.1360
OPTIMIZING UTOPIA CLAV POLLING	)	Conexant Ref. GV219
ARBITRATION	)	

<u>AMENDMENT AND RESPONSE TO OFFICE ACTION</u>

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

The Office Action mailed May 7, 2007, has been carefully considered. In

response thereto, please enter the following amendments and consider the following

remarks.

In the Claims

Please amend the claims as indicated below. The language being added is underlined ("__") and the language being deleted contains a strikethrough ("—").

Listing of Claims

1.   (Currently Amended) A method for optimizing cell available (CLAV) status polling of a plurality of physical interface addresses, the method comprising the steps of:

polling a plurality of PHY addresses to determine CLAV status;

receiving the CLAV status for each one of the plurality of PHY addresses;

determining whether the CLAV status could change for each PHY address; and

re-polling <u>only</u> each <u>of the</u> PHY address with a<u>the</u> CLAV status that could change.

2.   (Original) The method of claim 1, wherein the CLAV status that could change comprises an inactive CLAV status.

3.   (Original) The method of claim 1, wherein the CLAV status that could change comprises a completed cell transfer.

4.   (Original) The method of claim 2, wherein the step of re-polling further comprises the step of: re-polling addresses with an inactive CLAV status.

5.   (Original) The method of claim 3, wherein the step of re-polling further comprises the step of: re-polling addresses having completed a cell transfer.

6.   (Original) The method of claim 1, wherein re-polling of PHY addresses having an active CLAV status are avoided.

7.   (Original) The method of claim 1, wherein the CLAV status comprises ability to receive a cell.

8.   (Original) The method of claim 7, wherein a PHY address is re-polled within at least four bytes of a previous cell transfer.

9.   (Original) The method of claim 1, wherein the CLAV status comprises the ability to transmit a cell.

10.   (Original) The method of claim 1, wherein each PHY address with an inactive CLAV status is re-polled until the PHY address indicates an active CLAV status.

11.   (Original) The method of claim 1, wherein the physical interface is a UTOPIA.

12.   (Currently Amended) A system for optimizing cell available (CLAV) status polling of a plurality of physical interface addresses, the system comprising:

a polling module for polling a plurality of PHY addresses to determine CLAV status;

a status module for receiving the CLAV status for each one of the plurality of PHY addresses;

a determining module for determining whether the CLAV status could change for each PHY address; and

a re-polling module for re-polling <u>only</u> each <u>of the</u> PHY address with a<u>the</u> CLAV status that could change.

13.   (Original) The system of claim 12, wherein the CLAV status that could change comprises an inactive CLAV status.

14.   (Original) The system of claim 12, wherein the CLAV status that could change comprises a completed cell transfer.

15.   (Original) The system of claim 13, wherein the re-polling module further comprises re-polling addresses with an inactive CLAV status.

16.   (Original) The system of claim 14, wherein the re-polling module further comprises re-polling addresses having completed a cell transfer.

17.   (Original) The system of claim 12, wherein re-polling of PHY addresses having an active CLAV status are avoided.

18.   (Original) The system of claim 12, wherein the CLAV status comprises ability to receive a cell.

19.   (Original) The system of claim 18, wherein a PHY address is re-polled within at least four bytes of a previous cell transfer.

20.   (Original) The system of claim 12, wherein the CLAV status comprises the ability to transmit a cell.

21.   (Original) The system of claim 12, wherein each PHY address with an inactive CLAV status is re-polled until the PHY address indicates an active CLAV status.

22.   (Original) The system of claim 12, wherein the physical interface is a UTOPIA.

23.   (Currently Amended) A computer readable medium, the computer readable medium comprising a set of instructions for optimizing cell available (CLAV) status polling of a plurality of physical interface addresses and being adapted to manipulate a processor to:

poll a plurality of PHY addresses to determine CLAV status; ~~and~~

receive the CLAV status for each one of the plurality of PHY addresses;

~~determining~~ determine whether the CLAV status could change for each PHY address; and

re-poll only each of the PHY address with ~~a~~ the CLAV status that could change.

24.   (Original) The computer readable medium as in claim 23, wherein the CLAV status that could change comprises an inactive CLAV status.

25.   (Original) The computer readable medium as in claim 23, wherein the CLAV status that could change comprises a completed cell transfer.

26.   (Original) The computer readable medium as in claim 24, wherein the instructions are further adapted to re-poll addresses with an inactive CLAV status.

27.   (Original) The computer readable medium as in claim 25, wherein the instructions are further adapted to poll addresses having completed a cell transfer.

28.   (Original) The computer readable medium as in claim 23, wherein the instructions are further adapted to avoid re-polling PHY addresses having an active CLAV status.

29.   (Original) The computer readable medium as in claim 23, wherein the CLAV status comprises ability to receive a cell.

30.   (Original) The computer readable medium as in claim 23, wherein the instructions are further adapted to re-poll a PHY address within at least four bytes of a previous cell transfer.

31.   (Original) The computer readable medium as in claim 23, wherein the CLAV status comprises the ability to transmit a cell.

32.   (Original) The computer readable medium as in claim 23, wherein the instructions are further adapted to re-poll each PHY address with an inactive CLAV status until the PHY address indicates an active CLAV status.

33.   (Original) The computer readable medium as in claim 23, wherein the physical interface is a UTOPIA.

In the Drawings

The attached sheets of drawings include new drawings for Fig. 14-19. These sheets replace the original sheets including Fig. 14-19.

Attachments

Replacement Sheets

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed May 7, 2007. The Examiner is thanked for the thorough examination of the present application. Upon entry of the amendments in this response, claims 1-33 are pending in the present application.

The Office Action objected to FIGs. 14-19 because of clarity and line quality issues. In response, Applicant has prepared formal drawings, which are submitted herewith in accompanying replacement sheets.

Claims 1-33 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Nichols et al. (U.S. Pat. No. 6,356,557, hereinafter "Nichols") in view of Joshi et al. (U.S. Pat. No. 6,006,017, hereinafter "Joshi"). In response, independent claims 1, 12, and 23 have been amended to clearly define over the rejections. Applicants respectfully request consideration of the following amendments and remarks contained herein. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Response to Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-33 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nichols in view of Joshi. Applicant respectfully requests reconsideration of this rejection for at least the following reasons.

Independent Claims 1, 12, and 23 are Patentable Over Nichols

Applicants respectfully submit that independent claims 1, 12, and 23 patently define over Nichols and Joshi for at least the reason that Nichols and Joshi fail to disclose, teach, or suggest certain features in claims 1, 12, and 23.

Claims 1, 12, and 23, as amended herein, recite:

1.   A method for optimizing cell available (CLAV) status polling of a plurality of physical interface addresses, the method comprising the steps of:

polling a plurality of PHY addresses to determine CLAV status;

receiving the CLAV status for each one of the plurality of PHY addresses;

determining whether the CLAV status could change for each PHY address; and

re-polling <u>only</u> each of the PHY address with the CLAV status that could change.

12.   A system for optimizing cell available (CLAV) status polling of a plurality of physical interface addresses, the system comprising:

a polling module for polling a plurality of PHY addresses to determine CLAV status;

a status module for receiving the CLAV status for each one of the plurality of PHY addresses;

a determining module for determining whether the CLAV status could change for each PHY address; and

a re-polling module for ***re-polling <u>only</u> each of the PHY address with the CLAV status that could change***.

23.   A computer readable medium, the computer readable medium comprising a set of instructions for optimizing cell available (CLAV) status polling of a plurality of physical interface addresses and being adapted to manipulate a processor to:

poll a plurality of PHY addresses to determine CLAV status;

receive the CLAV status for each one of the plurality of PHY addresses;

determine whether the CLAV status could change for each PHY address; and

re-poll <u>only</u> each of the PHY address with the CLAV status that could change.

(*Emphasis added*). Independent claims 1, 12, and 23 patently define over the cited art

for at least the reason that the cited art fails to disclose the features emphasized above.

Nichols merely states that "the ATM layer device starts the address polling

process again, and *the entire polling, response, selection, enabling, and data sending*

sequence is repeated," regardless of the CLAV status of the PHY addresses (Nichols;

Col. 5, Lines 10-13). Such unbiased repetition of the entire polling process results in

wasted polling bandwidth. In contrast, the present disclosure optimizes polling

arbitration by "re-polling **only** each of the PHY address with the CLAV status that could

change," as recited in amended claims 1, 12, and 23, thereby conserving resources and

ensuring efficient use of polling bandwidth.

Therefore, even if Nichols and Joshi can be properly combined, the resulting

combination does not teach all features of independent claims 1, 12, and 23, since

Joshi does not remedy the deficiencies of the Nichols reference. For at least this

reason claims 1, 12, and 23 define over the cited art.

As a separate and independent basis for the patentability of all claims, Applicant

submits that the combination of Joshi and Nichols does not render the claims obvious.

In this regard, the Office Action combined Joshi with Nichols to reject the claims on the

solely expressed basis that "it would have been obvious ... for the purpose of improving

polling efficiency." (see e.g., Office Action, p. 4)

This rationale is both incomplete and improper in view of the established

standards for rejections under 35 U.S.C. § 103.

In this regard, the MPEP section 2141 states:

> Office policy has consistently been to follow _Graham v. John Deere Co_. in the consideration and determination of obviousness under 35 U.S.C. 103. As quoted above, the four factual inquires enunciated therein as a background for determining obviousness are briefly as follows:
> (A) Determining of the scope and contents of the prior art;
> (B) Ascertaining the differences between the prior art and the claims in issue;
> (C) Resolving the level of ordinary skill in the pertinent art; and
> (D) Evaluating evidence of secondary considerations.
> ...
>
> BASIC CONSIDERATIONS WHICH APPLY TO OBVIOUSNESS REJECTIONS
>
> When applying 35 U.S.C 103, the following tenets of patent law must be adhered to:
> (A) The claimed invention must be considered as a whole;
> (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
> (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and
> (D) Reasonable expectation of success is the standard with which obviousness is determined.
>
> _Hodosh v. Block Drug Co., Inc_., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

The foregoing approach to obviousness determinations was recently confirmed by the United Stated Supreme Court decision in KSR INTERNATIONAL CO. V. TELEFLEX INC. ET AL. 550 U.S. ___ (2007)(No. 04-1350, slip opinion, p. 2), where the Court stated:

> In Graham v. John Deere Co. of Kansas City, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in Hotchkiss v. Greenwood, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:
> "Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be

ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., mightbe utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Id., at 17–18.

Simply stated, the Office Action has failed to at least (1) ascertain the differences between and prior art and the claims in issue; and (2) resolve the level of ordinary skill in the art. Furthermore, the alleged rationale for combining the two references (i.e., improving polling efficiency) embodies clear and improper hindsight rationale, as it merely cited a utility of Applicant's own invention as the motivation to combine the cited references. For at least these additional reasons, Applicant submits that the rejections of all claims are improper and should be withdrawn.

Dependent Claims 2-11, 13-22, and 24-33 are Patentable Over Nichols

Because independent claims 1, 12, and 23 patently define over the cited art, dependent claims 2-11, 13-22, and 24-33 are allowable over the cited art as a matter of law for at least the reason that claims 2-11, 13-22, and 24-33 contain all the features and elements of their corresponding independent claim. See, _e.g. In re Fine_, 837 F. 2d 1071 (Fed. Cir. 1988).

CONCLUSION

Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 50-0835.

Respectfully submitted,

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